

Air through perfection

Return grille with fixed blades



ACP
Grilles

Return grille with fixed blades SD



Description

SD is a simple deflection grille, made of aluminum, with fixed blades inclined at 45 degrees.

The grille is used to evacuate or recirculate air.

Technical specifications

Characteristics

The grille is provided with fixed blades, positioned at 45°, parallel to the "L" (length).

As standard, the grille is manufactured with holes for screw mounting, except for the size 595x595 mm (external dimensions) for the false ceiling 600x600 mm.

The product is delivered with fixing screws.

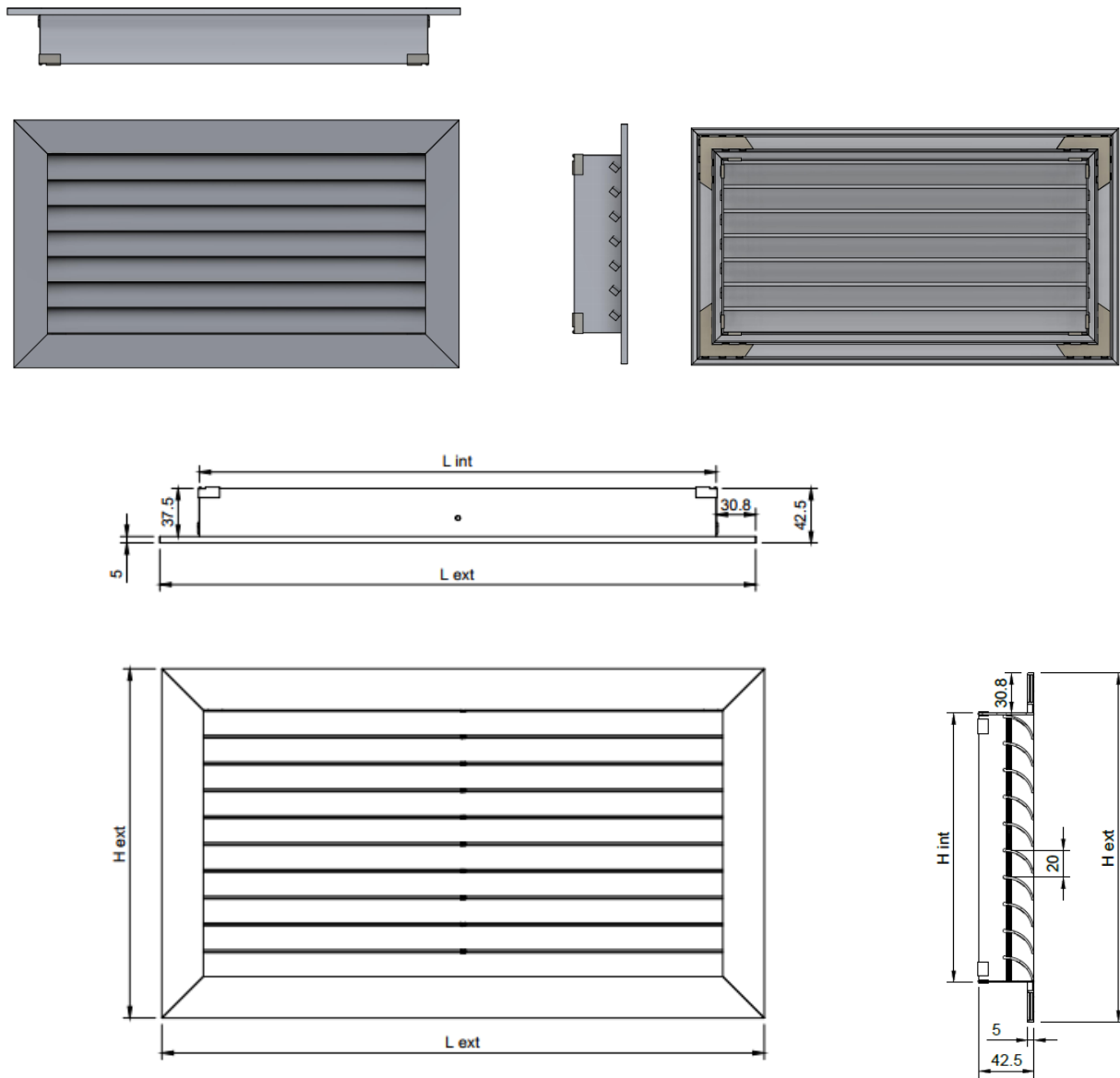
For installation with a mounting frame, the grille is accessorized with fixing clips.

Materials

The grille is made of extruded aluminum electrostatic field painted in glossy white RAL 9016.

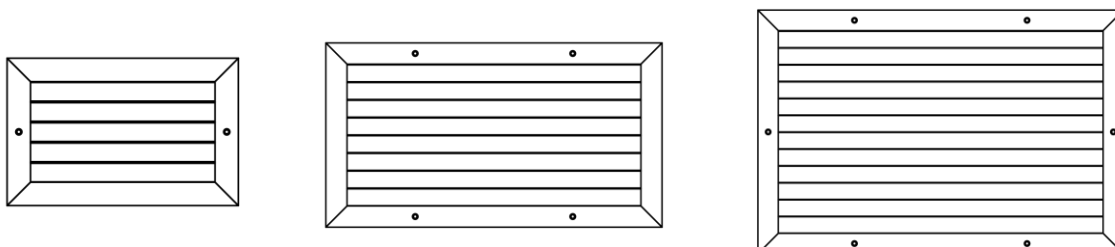
On request, the grille be painted in other shades from the RAL palette.

Technical drawing



Product specifications

The grille is made standard with mounting holes positioned on the product frame. The number of holes and their position are made according to the size of the product, according to the pictures and table.



L x H [mm]	Number of holes																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	2	2	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
100	2	2	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
150	-	2	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
200	-	2	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
300	-	-	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
400	-	-	-	4	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
500	-	-	-	-	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
600	-	-	-	-	-	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8
700	-	-	-	-	-	-	4	4	4	4	4	8	8	8	8	8	8	10	10	10
800	-	-	-	-	-	-	-	6	6	6	6	8	8	8	8	8	8	10	10	10
900	-	-	-	-	-	-	-	-	6	6	6	8	8	8	8	8	8	10	10	10
1000	-	-	-	-	-	-	-	-	-	6	6	8	8	8	8	8	8	10	10	10
1100	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	10	10	10
1200	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	10	10	10
1300	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	10	10	10
1400	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10
1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10
1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10
1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	16	16
1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	16
1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16
2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16

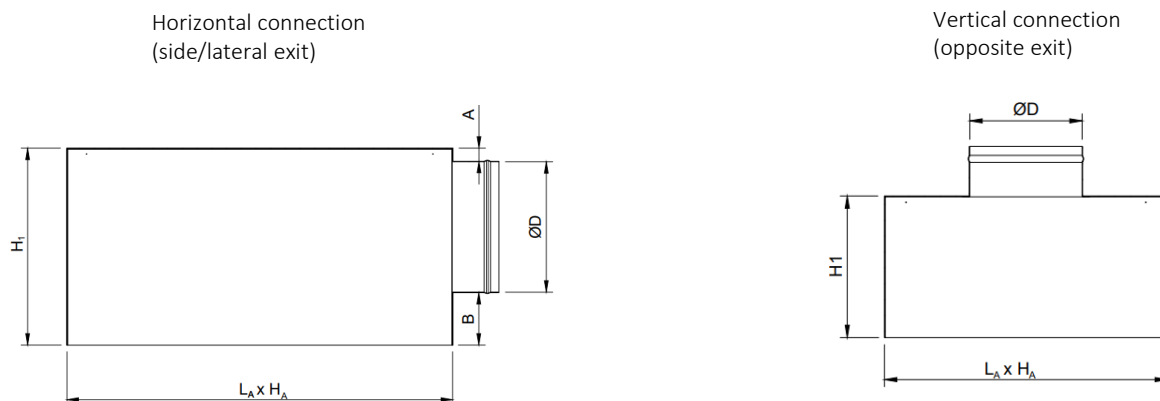
Accessories

The grille can be delivered with a connecting plenum to the circular duct, with horizontal or vertical connection.

The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

The product can be accessorized with opposed blade damper, G4 air filter or mounting frame.

Adapter (plenum box)

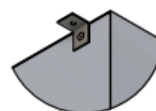
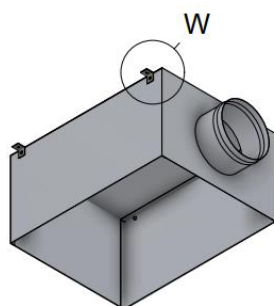


* For fixing with screws: $L_A \times H_A = L_{int} \times H_{int} \text{ grille} + 5 \text{ mm}$

* For fixing with mounting frame: $L_A \times H_A = L_c \times H_c \text{ mounting frame} + 3 \text{ mm}$

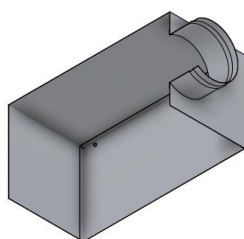
A, B, H1 – depending on demand and $\varnothing D$

The adapter is made of Z140 galvanized steel sheet and is equipped with suspension lugs.

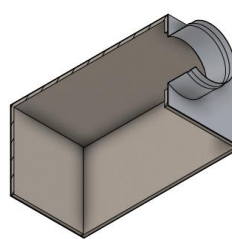


W - Suspension lug

On request, the plenum can be insulated with 6 mm thick elastomeric rubber.



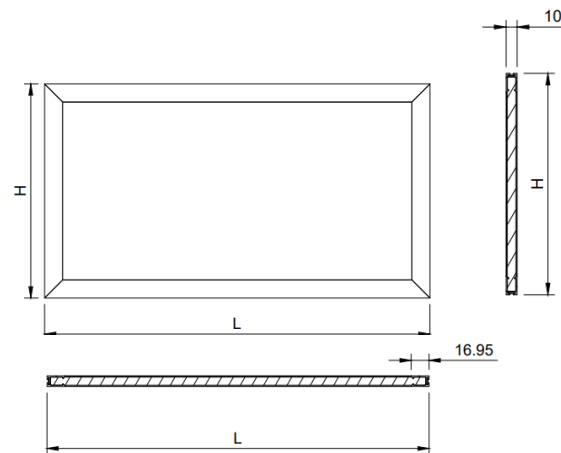
AN - Uninsulated adapter



AIZ - Insulated adapter

Air filter G4 with frame (F-R)

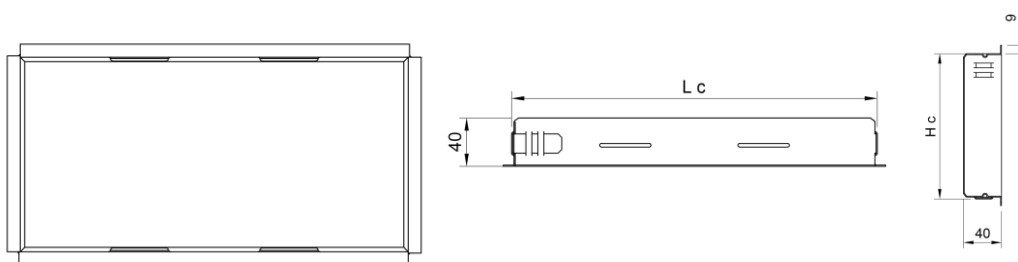
G4 air filter with aluminum frame, used for air filtration and is installed on the grille connection. The large dimensions are made in several pieces.



L x H [mm]	Air filter																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
100	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
150	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
200	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
300	-	-	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
400	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
500	-	-	-	-	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
600	-	-	-	-	-	1	2	2	2	2	2	2	2	3	2	3	3	3	3	4
700	-	-	-	-	-	-	2	2	2	2	3	3	3	3	3	3	3	4	4	4
800	-	-	-	-	-	-	-	2	2	2	3	3	3	3	3	3	3	4	4	5
900	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	4	4	5
1000	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	4	4	4	5

Mounting frame (CC)

The mounting frame is used when a hidden, easy and fast installing of the grille is desired. Depending on the size required, it is made and delivered in one or more pieces.

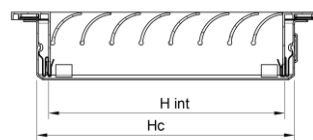
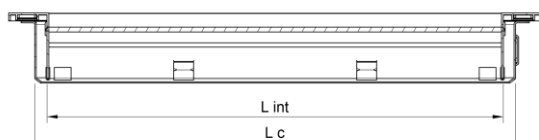


L x H [mm]	Mounting frame																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
100	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
150	-	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
200	-	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
300	-	-	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
400	-	-	-	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
500	-	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
600	-	-	-	-	-	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
700	-	-	-	-	-	-	1	1	1	1	1	2	2	2	2	-	-	-	-	-
800	-	-	-	-	-	-	-	1	1	1	1	2	2	2	2	-	-	-	-	-
900	-	-	-	-	-	-	-	-	1	1	1	2	2	2	2	-	-	-	-	-
1000	-	-	-	-	-	-	-	-	-	1	1	2	2	2	2	-	-	-	-	-

For installation with mounting frame, the grille is equipped with clips that allow quick and easy clamping. The number of clips with which the grille is equipped depends on the size of the product.

L x H [mm]	Number of mounting clips																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	2	2	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
100	2	2	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
150	-	2	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
200	-	2	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
300	-	-	4	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
400	-	-	-	4	4	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
500	-	-	-	-	6	6	6	6	6	6	6	6	8	8	8	8	10	10	10	10
600	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	10	10	10	10
700	-	-	-	-	-	-	8	8	8	8	8	10	10	10	10	-	-	-	-	-
800	-	-	-	-	-	-	-	8	8	8	8	10	10	10	10	-	-	-	-	-
900	-	-	-	-	-	-	-	-	8	8	8	12	12	12	12	-	-	-	-	-
1000	-	-	-	-	-	-	-	-	-	8	8	12	12	12	12	-	-	-	-	-

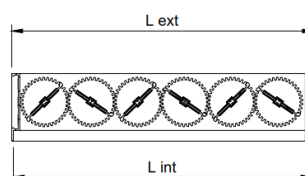
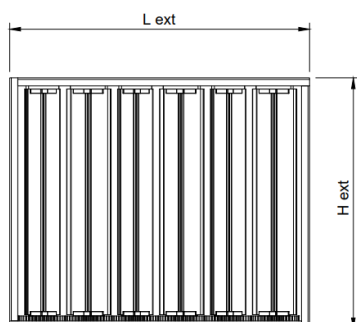
Example: SD + CC



$$L_c \times H_c = L_{int} \times H_{int} \text{ grille} + 18 \text{ mm}$$

Opposed blade damper (OBD)

The damper is provided with opposable blades and gears, it is mounted on the grille connection.



L x H [mm]	Opposed blade damper																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
85	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
100	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
150	-	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
200	-	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
300	-	-	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
400	-	-	-	1	1	1	2	2	2	2	2	2	3	3	3	3	3	4	4	4
500	-	-	-	-	1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4
600	-	-	-	-	-	2	2	4	4	4	4	4	4	4	4	4	5	5	5	5

Functional parameters

Air flow (m³/h)	L x H Ak [m²]	200 x 100	300 x 150	400 x 200	300 x 300	500 x 300	600 x 300	800 x 300	600 x 600	1000 x 600
		0.0076	0.0189	0.0345	0.0416	0.0721	0.0915	0.1173	0.1759	0.2934
60	Ve _{eff} [m/s]	2.2								
	ΔP _t [Pa]	5.0								
	NR [dB(A)]	22.0								
80	Ve _{eff} [m/s]	2.9								
	ΔP _t [Pa]	9.0								
	NR [dB(A)]	29.0								
100	Ve _{eff} [m/s]	3.7								
	ΔP _t [Pa]	14.0								
	NR [dB(A)]	35.0								
140	Ve _{eff} [m/s]	5.1	2.1							
	ΔP _t [Pa]	27.0	2.0							
	NR [dB(A)]	44.0	16.0							
180	Ve _{eff} [m/s]	6.6	2.6							
	ΔP _t [Pa]	45.0	3.0							
	NR [dB(A)]	51.0	22.0							
200	Ve _{eff} [m/s]	7.3	2.9	1.6						
	ΔP _t [Pa]	56.0	4.0	3.0						
	NR [dB(A)]	53.0	25.0	22.0						
300	Ve _{eff} [m/s]		4.4	2.4	2.0					
	ΔP _t [Pa]		9.0	6.0	2.0					
	NR [dB(A)]		36.0	32.0	22.0					
400	Ve _{eff} [m/s]		5.9	3.2	2.7					
	ΔP _t [Pa]		16.0	12.0	4.0					
	NR [dB(A)]		43.0	40.0	30.0					
500	Ve _{eff} [m/s]		7.3	4.0	3.3	1.9				
	ΔP _t [Pa]		25.0	18.0	7.0	2.0				
	NR [dB(A)]		49.0	46.0	36.0	24.0				
600	Ve _{eff} [m/s]				4.0	2.3	1.8	1.4		
	ΔP _t [Pa]				11.0	3.0	2.0	1.0		
	NR [dB(A)]				41.0	29.0	24.0	18.0		
800	Ve _{eff} [m/s]				5.3	3.1	2.4	1.9		
	ΔP _t [Pa]				19.0	6.0	4.0	2.0		
	NR [dB(A)]				48.0	36.0	32.0	26.0		
1000	Ve _{eff} [m/s]				6.7	3.9	3.0	2.4	1.6	
	ΔP _t [Pa]				30.0	10.0	6.0	4.0	1.0	
	NR [dB(A)]				54.0	42.0	38.0	32.0	21.0	
1400	Ve _{eff} [m/s]					5.4	4.3	3.3	2.2	
	ΔP _t [Pa]					20.0	13.0	7.0	2.0	
	NR [dB(A)]					51.0	46.0	40.0	29.0	
1800	Ve _{eff} [m/s]						5.5	4.3	2.8	
	ΔP _t [Pa]						22.0	12.0	4.0	
	NR [dB(A)]						53.0	47.0	36.0	
2000	Ve _{eff} [m/s]							4.7	3.2	
	ΔP _t [Pa]							15.0	5.0	
	NR [dB(A)]							50.0	39.0	
3000	Ve _{eff} [m/s]								4.7	2.8
	ΔP _t [Pa]								13.0	1.0
	NR [dB(A)]								49.0	22.0
4000	Ve _{eff} [m/s]									3.8
	ΔP _t [Pa]									1.0
	NR [dB(A)]									30.0

The legend

Ak [m²] - The free surface

Ve_{eff} [m/s] - The effective velocity of air in the grille

ΔP_t [Pa] - Pressure loss

NR [dB (A)] - Noise level without room attenuation

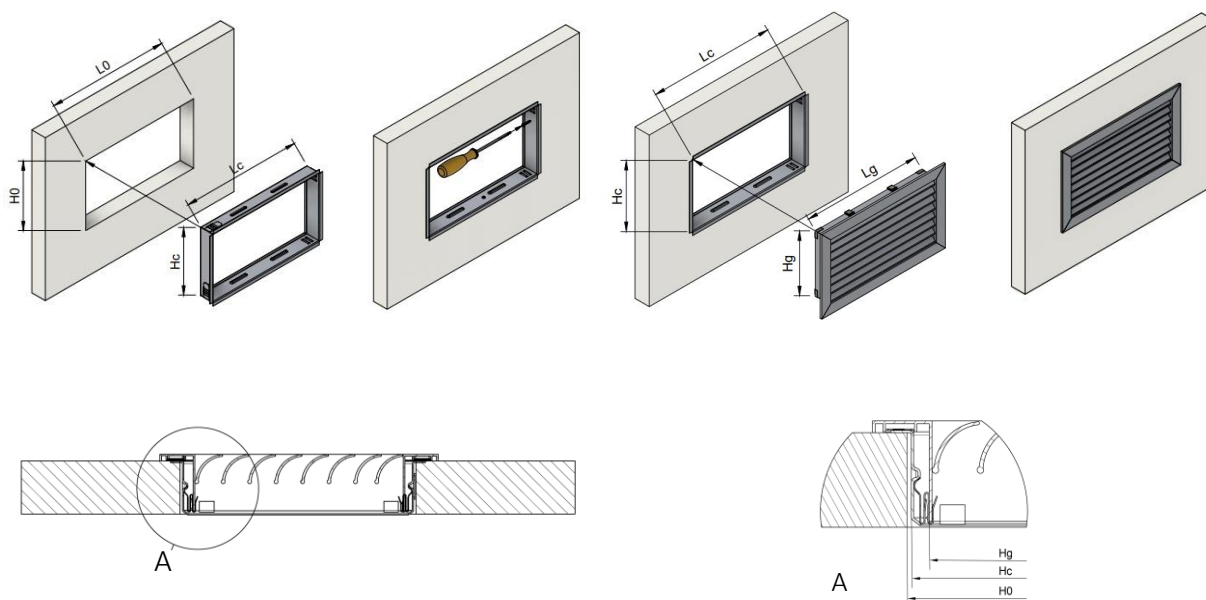
Installation

As standard the grille is mounted by means of screws.

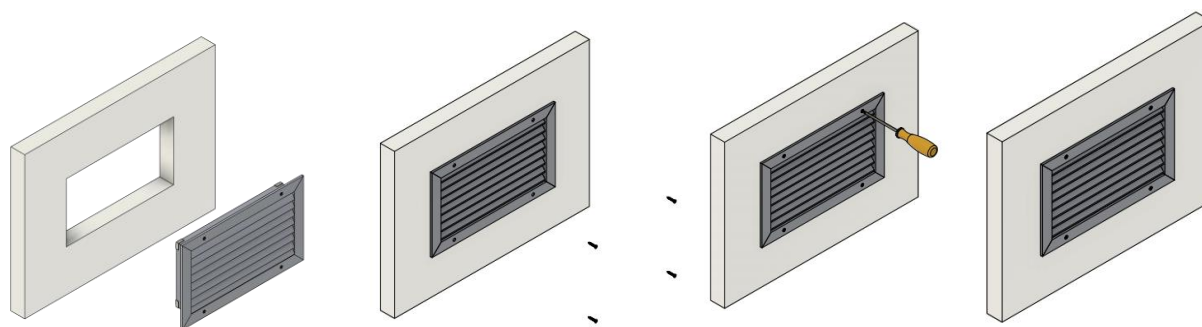
Optionally, for a hidden and easy assembly, a mounting frame can be used. The installation of the grille in the mounting frame is done by clamping.

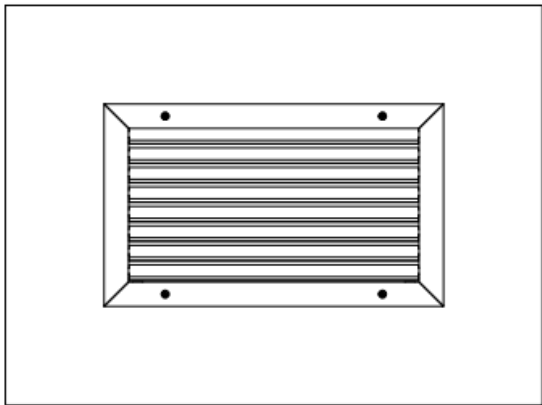
The grille with dimensions 595x595 mm (LxHext) is placed on the profile of the false suspended ceiling with size 600x600 mm (the product is made without holes).

Installation in wall or continuous ceiling with mounting frame

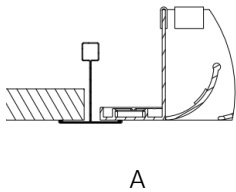
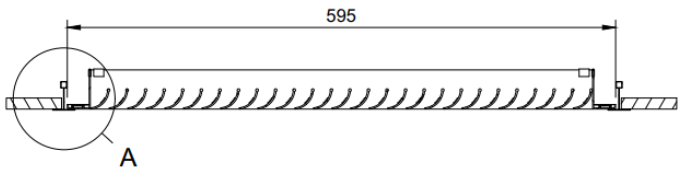


Installation in wall or continuous ceiling with screws





Installation in T-bar suspended ceiling
SD 595X595 mm (external size)



Order code

Example on how to place an order

Type	Dimensions	Accessories	Mounting	Finish
SD				
On request				
F-R - Air filter				
OBD - Control damper				
AIZ - Insulated adapter				
AN - Uninsulated adapter				
Screws (standard)				
CC - Mounting frame (optional)				
RAL9016				
RAL...- Other RAL colors on request				